ABSTRACT

A current supply circuit (100) providing a data line (DL) with a current corresponding to a digital signal composed of data bits D0 - D5 includes a current control circuit (110), a precharge switch (140) and a precharge regulating circuit (150). The current control circuit (110) responds to control signals (Vcnt0 -Vcnt5) reflecting respective data bits (D0 - D5) to control the amount of current along the data line (DL). The precharge switch (140) precharges the data line (DL) to a predetermined voltage (Vbf) prior to current supply. The precharge regulating circuit (150) exchanges with the data line (DL) electric charge corresponding to the control signals (Vcnt0 -Vcnt5) to move the voltage on the data line (DL) closer to a steady voltage corresponding to the data bits (D0 - D5). In this way, an analog current corresponding to digital data can be promptly produced.